

AMENDMENTS TO THE CLAIMS

Please amend the claims of this application as follows:

1. (Currently amended) A method of driving an electro-optic display having a plurality of pixels each of which is capable of displaying at least three gray levels, the method comprising:

displaying a first image on the display; and

rewriting the display to display a second image thereon by applying to each pixel a waveform effective to cause the pixel to change from an initial gray level to a final gray level,

wherein, for all pixels undergoing non-zero transitions, the waveforms applied to the pixels have their last period of non-zero voltage terminating at substantially the same time; and

wherein at least one pixel undergoes a zero transition during which there is applied to that pixel at least one period of non-zero voltage, and wherein the last period of non-zero voltage applied to the pixel undergoing the zero transition terminates at substantially the same time as the last period of non-zero voltage applied to the pixels undergoing a non-zero transition.

2. (Cancelled).

3. (Original) A method according to claim 1 wherein the waveforms applied to the pixels have a last period of non-zero voltage of the same duration.

4. (Original) A method according to claim 3 wherein the waveforms applied to the pixels comprise a plurality of pulses, and the transitions between pulses occur at substantially the same time in all waveforms.

5. (Original) A method according to claim 1 wherein the electro-optic display is bistable.

6. (Original) A method according to claim 5 wherein the electro-optic display comprises an electrochromic or rotating dichromal member electro-optic medium.

7. (Original) A method according to claim 5 wherein the electro-optic display comprises an encapsulated electrophoretic medium.

8. (Original) A method according to claim 5 wherein the electro-optic display comprises a microcell electrophoretic medium.

9. (Original) A method according to claim 1 wherein the electro-optic display comprises a layer of electro-optic material having first and second electrodes on opposed sides thereof, and the spacing between the first and second electrodes is at least about twice the spacing between adjacent pixels of the display.

10. (Currently amended) A method according to claim 9 wherein the first electrode extends across a plurality of pixels, and a plurality of second electrodes are provided, each second electrode defining one pixel of the display, the second electrodes being arranged in a two-dimensional array.

11. (Cancelled).

12. (Original) A method according to claim 1 wherein the rewriting of the display is effected by applying to each pixel any one or more of the voltages $-V$, 0 and $+V$, where V is an arbitrary voltage.

13. (Original) A method according to claim 1 wherein the rewriting of the display is effected such that, for any series of transitions undergone by a pixel, the integral of the applied voltage with time is bounded.

14. (Original) A method according to claim 1 wherein the rewriting of the display is effected such that the impulse applied to a pixel during a transition depends only upon the initial and final gray levels of that transition.

15. (Original) A method according to claim 1 wherein at least one waveform has as its last period of non-zero voltage a series of pulses of alternating polarity.

16. (Original) A method according to claim 15 wherein the voltage applied during the pulses of alternating polarity is equal to the highest voltage used during the waveform.

17. (Original) A method according to claim 15 wherein the duration of each of the pulses of alternating polarity is not greater than about one-tenth of the duration of a pulse needed to drive a pixel from one extreme optical state to the other.

Claims 18-33. (Cancelled).

34. (Currently amended) An electro-optic display having a plurality of pixels, each of which is capable of displaying at least three gray levels, at least one pixel electrode being associated with each pixel and capable of applying an electric field thereto, and drive means for applying waveforms to the pixel electrodes, the drive means being arranged so that, for all pixels undergoing non-zero transitions, the waveforms applied to the pixels have their last period of non-zero voltage terminating at substantially the same time; and wherein for all pixels undergoing zero transitions during which there is applied to that pixel at least one period of non-zero voltage, the last period of non-zero voltage applied to the pixel undergoing the zero transition terminates at substantially the same time as the last period of non-zero voltage applied to the pixels undergoing a non-zero transition.

35. (Cancelled).

36. (Currently amended) A method of driving an electro-optic display having a plurality of pixels each of which is capable of displaying at least three gray levels, the method comprising:

displaying a first image on the display; and

rewriting the display to display a second image thereon by applying to each pixel a waveform effective to cause the pixel to change from an initial gray level to a final gray level,

wherein, for all pixels undergoing non-zero transitions, the waveforms applied to the pixels have their last period of non-zero voltage beginning at substantially the same time; and

wherein at least one pixel undergoes a zero transition during which there is applied to that pixel at least one period of non-zero voltage, and wherein the last period

of non-zero voltage applied to the pixel undergoing the zero transition terminates at substantially the same time as the last period of non-zero voltage applied to the pixels undergoing a non-zero transition.

37. (Previously presented) A method according to claim 36 wherein the electro-optic display is bistable.

38. (Previously presented) A method according to claim 37 wherein the electro-optic display comprises an electrochromic or rotating bichromal member electro-optic medium.

39. (Previously presented) A method according to claim 37 wherein the electro-optic display comprises an encapsulated electrophoretic medium.

40. (Previously presented) A method according to claim 37 wherein the electro-optic display comprises a microcell electrophoretic medium.

41. (Previously presented) A method of driving an electro-optic display having a plurality of pixels each of which is capable of displaying at least three gray levels, the method comprising:

displaying a first image on the display; and

rewriting the display to display a second image thereon by applying to each pixel a waveform effective to cause the pixel to change from an initial gray level to a final gray level,

wherein, for all pixels undergoing non-zero transitions, the waveforms applied to the pixels have at least one voltage transition occurring at substantially the same time in each waveform, the waveforms for all pixels undergoing non-zero transitions being of the form $-x/\Delta IP/x$, where ΔIP denotes a difference in impulse potential between the final and initial states of the waveform, while $-x$ and x represent a DC balanced pair of pulses.

42. (Previously presented) A method according to claim 41 wherein, for all pixels undergoing non-zero transitions, the first voltage transition of the waveform occurs at substantially the same time in each waveform.

43. (Cancelled).

44. (Previously presented) A method according to claim 41 wherein the beginning of the -x pulse occurs at substantially the same time in each waveform.

45. (Previously presented) A method according to claim 41 wherein the beginning of the Δ IP pulse occurs at substantially the same time in each waveform.

46. (Previously presented) A method according to claim 41 wherein the end of the x pulse occurs at substantially the same time in each waveform.

47. (Previously presented) A method according to claim 41 wherein the electro-optic display is bistable.

48. (Previously presented) A method according to claim 47 wherein the electro-optic display comprises an electrochromic or rotating bichromal member electro-optic medium.

49. (Previously presented) A method according to claim 47 wherein the electro-optic display comprises an encapsulated electrophoretic medium.

50. (Previously presented) A method according to claim 47 wherein the electro-optic display comprises a microcell electrophoretic medium.

51. (Cancelled).

52. (Previously presented) A method according to claim 41 wherein the rewriting of the display is effected by applying to each pixel any one or more of the voltages -V, 0 and +V, where V is an arbitrary voltage.